TETRA TECH

March 23, 2015

Mr. Jim Switzer
Project Director
Hickam Communities LLC
211 Mercury Street
Honolulu, HI 96818

jim.switzer@lendlease.com

Subject: TO#182 –Summary of Findings Report for Drip Line Soil Sampling, 1708 Harmon Avenue, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii

Dear Mr. Switzer:

This Summary of Findings Report (SoFR) presents the results of drip line soil sampling Tetra Tech performed on behalf of Hickam Communities LLC (HC) at 1708 Harmon Avenue, Joint Base Pearl Harbor-Hickam (JBPHH), Oahu, Hawaii (hereinafter the "Site"). The purpose of this investigation is to identify whether soil within the drip line at the Site is pesticide-impacted (PI). For sampling purposes, the drip line is considered to be the area extending three feet outside the edge of the concrete foundation.

Previous soil sampling results from investigations conducted at other HC project sites at JBPHH, indicate that the primary chemicals of concern expected to be present at the Site are the organochlorine pesticides aldrin, chlordane, and dieldrin. Based on previous investigation results, chlordane was apparently the primary organochlorine pesticide applied for termite control in the redeveloped portion of the Hale Na Koa neighborhood. A general description of the chemical properties, toxicity, methods of application, and environmental behavior of these chemicals is presented in the *Pesticide-Impacted Soil Investigation and Management Program Manual, Hickam Air Force Base, Oahu, Hawaii* (*Program Manual)* (Tetra Tech 2011a). This report was prepared using the adjusted site-specific Environmental Action Levels (EALs) developed for HC Project sites that was presented in the *Preliminary Human Health Risk Evaluation Work Plan for Hickam Communities, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii* (*HHRE Work Plan*) (Tetra Tech 2011b), and accepted by the Hawaii Department of Health in its letter dated October 31, 2011 (HDOH 2011b).

FIELD METHODS

Soil sampling activities at the Site were performed by Tetra Tech on March 11, 2015. The field sampling was conducted in accordance with an approved Sampling and Analysis Plan (SAP) (Tetra Tech 2015), using the multi-incremental (MI) soil sampling methodology presented in the guidelines described by the HDOH *Interim Final Technical Guidance*

Manual for Implementation of the Hawaii State Contingency Plan (*TGM*) (HDOH 2009a). The field methods are summarized below.

Multi-incremental Soil Sampling

For this investigation, one drip line DU was sampled (Figure 1). Tetra Tech collected one MI soil sample each from the 0- to 6- and 6- to 12-inch depth intervals at the DU. For quality assurance purposes a triplicate sample (one MI soil sample and two replicates) was collected from the 0- to 6-inch depth interval.

For each MI soil sample, thirty (30) soil increments (subsamples) were collected using a 7/8-inch-diameter soil probe sampler. The sample probes were cleaned before collecting MI soil samples using a laboratory grade detergent mixed with water, followed by a tap water rinse, and a final rinse with de-ionized water. The sampler was driven to a depth of 12-inches below grade, recovered, and the material brought to the surface. The soil recovered from 0- to 6- and 6- to 12-inch depth intervals was separated and each was composited in the field by placing the subsamples into sealable 1-gallon plastic bags. In order to preserve sample integrity during sample collection and transport, each of the MI sample bags was sealed, labeled, and placed into an ice-cooled insulated chest for transport under a chain-of-custody to the analytical laboratory.

ANALYTICAL METHODS AND RESULTS

A total of four MI soil samples (two MI soil samples and two replicates) were submitted to Torrent Laboratory, Milpitas, California for analysis. The MI soil samples were prepared according to the HDOH MI sub-sampling protocol (HDOH 2009a). Material from the 1-gallon plastic bags was air dried at room temperature, and sieved through a 2 millimeter (mm) sieve. The graded material was then spread out, and 30 subsamples collected by the laboratory were combined into one composite sample prepared for analysis. The samples were analyzed for organochlorine pesticides by:

- US Environmental Protection Agency (EPA) Method 8081A.

The laboratory analytical results were compared to the following environmental screening levels:

- HDOH Tier 1 EALs for soil with an unrestricted land use at a distance greater than 150 meters from surface water, and groundwater is a non-drinking water resource (Table B-1; HDOH 2011a);
- Site-specific EAL for technical chlordane established for HC property (Tetra Tech 2011a);
- Adjusted site-specific EALs for aldrin and dieldrin (Tetra Tech 2011b); and

- The cumulative risk was calculated and compared to the site-specific cumulative carcinogenic risk threshold of 1 x 10^{-4}, or the Hazard Index (HI) of 1.0 established for HC property (Tetra Tech 2011b).

The laboratory analytical results are summarized in Tables 1 and 2, and a copy of the analytical report is provided as Appendix A. Only the analytes detected at or above the respective laboratory method detection limits are shown in Tables 1 and 2.

QUALITY ASSURANCE / QUALITY CONTROL

Laboratory Data Quality

The four MI soil samples collected on March 11, 2015 were shipped by overnight express on March 12, 2015 and received by Torrent Laboratory on March 13, 2015 in good condition. The samples were logged as Work Order (WO) 1503089. An expedited 24 hour turnaround time (TAT) was requested for all samples (not including the 2-day MI sample preparation time). The cooler was received at a temperature of 2°C, within the required temperature limit of 4°C, ±2°. All samples were extracted and analyzed within the method holding times, and project-specific turnaround times.

The results for WO1503089 were reported on March 18, 2015. All LCS and LCSD spike and surrogate recoveries were within acceptance limits. All LCS/LCSD RPDs were within acceptance criteria. Some of the detections were flagged with a "J" qualifier, which indicates that the concentrations were below the practical quantitation limit (PQL) and should be considered estimated rather than quantitative (Appendix A).

Field Data Quality

In accordance with the *Program Manual* (Tetra Tech 2011a), which calls for collection of field triplicate samples at a rate of one triplicate per twenty samples (five percent), one set of triplicate samples was collected for this sampling event. The triplicate samples were collected from the 0- to 6-inch depth interval. These samples are distinguished by the suffix -01, -02, and -03.

The relative standard deviation (RSD) results for the triplicate samples are an indicator of how closely the concentrations in the MI soil samples represent the actual average concentration in the DUs. The RSDs for the triplicate samples were calculated using the RSD calculation provided in the Quality Assurance Program Plan (QAPP) (Tetra Tech 2011b). The RSD goal for field triplicates for the program, which is applicable only for mean concentrations greater than 10 times the PQL for the respective analyses, is 35 percent or less. Although the RSDs were greater than 35% for aldrin, chlordane, 4,4-dichlorodiphenyltrichloroethane (DDT), and 4,4-dichlorodiphenyldichloroethylene (DDE), the reported mean concentrations were all less than 10 times the PQL. In this low

concentration range, higher RSDs are normal. The laboratory data quality information was reviewed and no issues were found; therefore, the elevated RSDs are likely an artifact of soil heterogeneity.

Analytical Results

Organochlorine pesticides were detected at concentrations above the laboratory method detection limit, but below the respective HDOH Tier 1 EALs, in all four MI soil samples collected at the Site. A summary of these detections is presented below and in Table 1.

- Aldrin was detected in only one of the four samples, at a concentration of 0.0049 milligrams per kilogram (mg/kg). The Tier 1 EAL for aldrin (0.92 mg/kg).
- Chlordane was detected in all four MI soil samples at concentrations ranging from 0.58 mg/kg to 2.1 mg/kg. The Tier 1 EAL for chlordane (16 mg/kg).
- Dieldrin was detected in all four MI soil samples at concentrations ranging from 0.015 to 0.032 mg/kg. The Tier 1 EAL for dieldrin (1.5 mg/kg).
- DDE was detected in three of the four samples at concentrations ranging from 0.0054 to 0.06 mg/kg. The Tier 1 EAL for DDE (1.4 mg/kg).
- DDT was detected in two of the four samples at concentrations of 0.015 mg/kg and 0.016 mg/kg. The Tier 1 EAL for DDT (1.7 mg/kg).

CUMULATIVE RISK AND HAZARD THRESHOLD

Cumulative risk is the sum of the carcinogenic risks posed by the detected concentrations of all organochlorine pesticides in the soil. Similarly, the cumulative noncancer hazard (hazard index or "HI") is the sum of the noncancer hazards posed by detected concentrations of all organochlorine pesticides in soil. The *HHRE Work Plan* presented four criteria, referred to as the "2011 HHRE Standard" (Tetra Tech 2011b). If any of the following four criteria is not met, the soil requires additional management as pesticide impacted (PI) soil:

(1) the cumulative excess cancer risk for aldrin plus dieldrin must not exceed 1×10^{-4};

(2) the cumulative excess cancer risk for all other organochlorine pesticides must not exceed 1×10^{-5};

(3) the cumulative excess cancer risk for all chemicals of potential concern (COPCs) must not exceed 1×10^{-4}; and,

(4) the HI for all COPCs must not exceed 1.0.

Based on the concentrations detected in the samples, the shallow soil within the drip line surrounding 1708 Harmon Avenue does not exceed the criteria of the 2011 HHRE Standard, is not PI soil, and does not require additional management.

CONCLUSIONS AND RECOMMENDATIONS

The results of the MI soil sampling indicate that:

- The cumulative risks calculated for the detected organochlorine pesticides meet the four criteria 2011 Standard (Tetra Tech 2011a), and the soil from the DU is not PI soil.
- The concentrations of organochlorine pesticides detected in soil at the Site were below the respective HDOH Tier 1 EALs, which are considered protective for unrestricted residential use based on a target excess cancer risk of one in one million, and a hazard Index of 1.0.

Based on these results, Tetra Tech recommends no further action in regard to the soil in the drip lines at 1708 Harmon Avenue.

REFERENCES

HDOH (Hawaii Department of Health). 2009. *Interim Final Technical Guidance Manual for Implementation of the Hawaii State Contingency Plan.* Prepared by: Hawaii Department of Health Environmental Management Division. June 21, 2009.

----------. 2011a. *HDOH Environmental Action Levels, Supplemental Models in Excel Format, EAL Surfer. March 2009*. Accessed at internet website URL: http://hawaii.gov/health/environmental/hazard/eal2005.html

----------. 2011b. *Review of Revised Draft Preliminary Human Health Risk Evaluation Work Plan for Hickam Communities, Joint Base Pearl Harbor-Hickam. 2011-627-ES*. Letter from Eric Sadoyama HDOH to Roger Franklin, Lend Lease Americas LLC. October 31, 2011.

Tetra Tech. 2009. *Pesticide-Impacted Soil Investigation and Management Program Manual, Hickam Air Force Base, Oahu, Hawaii.* Prepared for Hickam *Community Housing LLC. August 31, 2011.*

----------. 2011a. *Pesticide-Impacted Soil Investigation and Management Program Manual, Hickam Air Force Base, Oahu, Hawaii, DCN: 2770101.001.F03.* Prepared for Hickam Communities LLC. August 31, 2011.

----------. 2011b. *Preliminary Human Health Risk Evaluation Work Plan for Hickam Communities, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii. DCN: 2653504.021.F01.* Prepared for Hickam Communities LLC. October 31, 2011.

----------. 2015. *Sampling Analysis Plan, Sampling at 1708 Harmon Avenue, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.* Prepared for Hickam Communities LLC. March 10, 2015.

If you have any questions or comments about this report, please contact Yvonne Parry at (808) 441-6600. Tetra Tech appreciates the opportunity to provide continued environmental support to HC.

Sincerely,
TETRA TECH

Yvonne Parry
Senior Project Manager

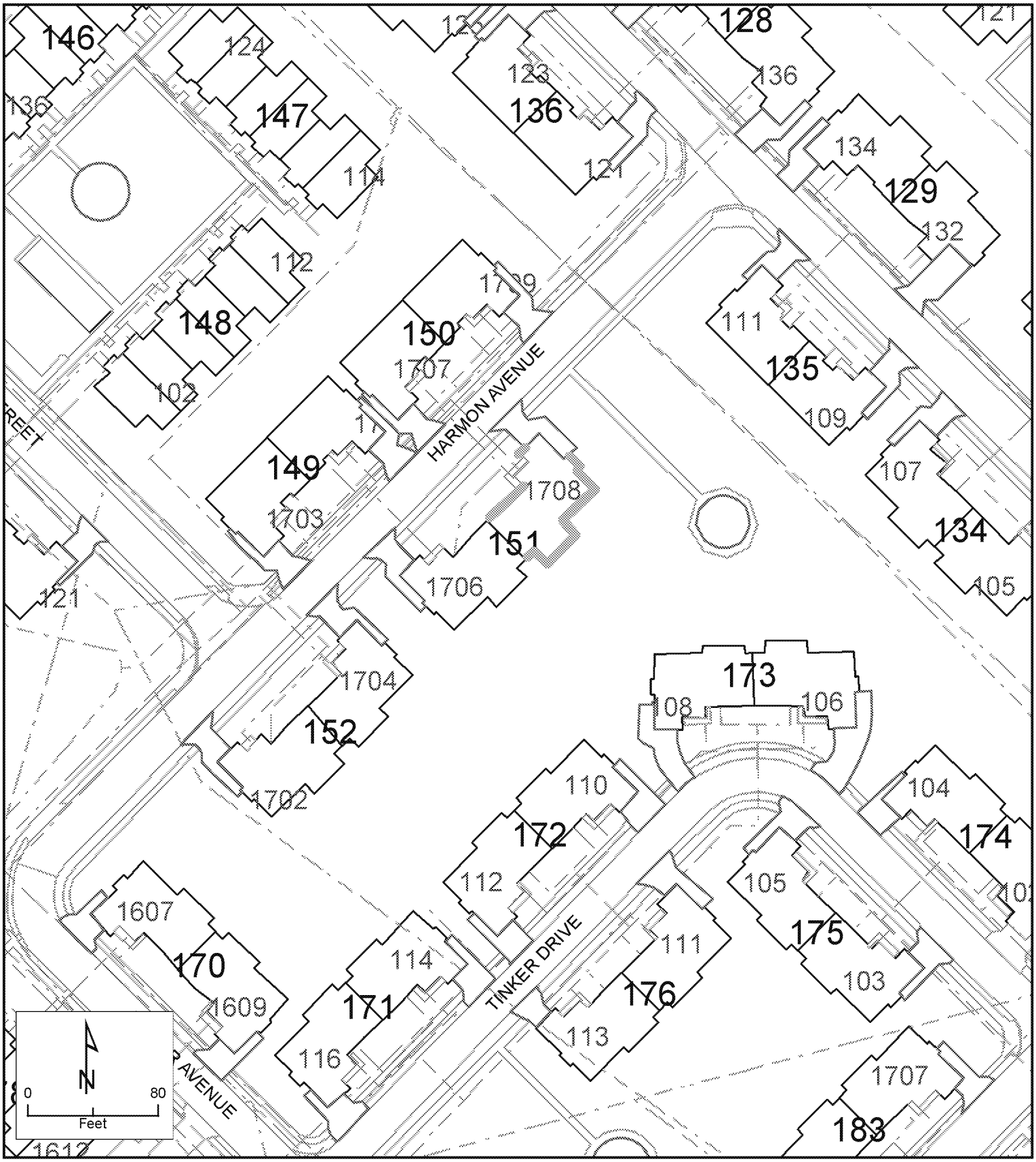
Gary Floyd
Program Manager

Attachments:

Figure 1.	Drip Line Decision Unit at 1708 Harmon Avenue
Table 1.	Analytical Results for Pesticides in Soil, Drip Line Sampling – 1708 Harmon Avenue, Joint Base Pearl Harbor-Hickam, Hawaii.
Table 2.	Results for Pesticides in Soil / Risk and Hazard Calculations – Child Resident, Drip Line Sampling – 1708 Harmon Avenue, Joint Base Pearl Harbor-Hickam, Hawaii.
Appendix A.	Laboratory Analytical Report

cc: Tom Whitehead, CHG, Program Technical Lead, QA/QC Manager, Tetra Tech

FIGURE



Drip Line Decision Unit at 1708 Harmon Avenue

Joint Base Pearl Harbor-Hickam, O'ahu, Hawai'i

Drip Line Decision Unit

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Figure 1

TABLES

Table 1
Analytical Results for Pesticides In Soil
Drip Line Soil Sampling, 1708 Harmon Avenue
Joint Base Pearl Harbor-Hickam, Oahu, Hawaii

Decision Unit	Sample ID	Sample Date	Depth Interval (inches)	Aldrin (mg/kg)	Chlordane [1] (mg/kg)	Dieldrin (mg/kg)	4,4-DDE (mg/kg)	4,4-DDT (mg/kg)
Drip Line	HAR-DL-06-01	3/11/2015	0 to 6	0.0049	0.61	0.031	0.0067	0.015
	HAR-DL-06-02	3/11/2015	0 to 6	<0.0044	2.1	0.032	0.060	0.016
	HAR-DL-06-03	3/11/2015	0 to 6	<0.0044	0.94	0.019	0.0054	<0.0081
	HAR-DL-12	3/11/2015	6 to 12	<0.0044	0.58	0.015	<0.0048	<0.0081
			HDOH Tier 1 EAL [2]	***0.92***	***16***	***1.5***	***1.4***	***1.7***
			Site-Specific EAL [3]	***12***	***23.4***	***9.8***	***NE***	***NE***

NOTES

Only detected analytes are shown in this table.

Sample HAR-DL-06 is a triplicate.

Exceeds HDOH Tier 1 EAL

Exceeds Site-Specific EAL

DDE dichlorodiphenyldichloroethylene
DDT dichlorodiphenyltrichloroethane
EAL Environmental Action Level
HDOH Hawai'i Department of Health
mg/kg milligram per kilogram
NE Not established
< less than the laboratory reporting limit

[1] Technical chlordane. The technical chlordane constituents alpha-chlordane, gamma-chlordane, heptachlor, and heptachlor epoxide not reported in this table. Any detections of these chemicals are provided in the laboratory analytical report.

[2] HDOH Tier 1 EALs are for soil with an unrestricted land use at a distance greater than 150 meters from surface water, and groundwater is a non drinking water resource (Table B-1) (HDOH 2011a).

[3] Site-specific EALs calculated for Hickam Communities property (Tetra Tech 2011a and 2011b).

Table 2
Results for Pesticides in Soil / Risk and Hazard Calculations - Child Resident
Drip Line Soil Sampling, 1708 Harmon Avenue
Joint Base Pearl Harbor-Hickam, Oahu, Hawaii

Decision Unit	Sample ID	Date Sampled	Depth Interval (inches)	Analytical Results (mg/kg)					PI Soil [2]
				Aldrin	Chlordane [3]	Dieldrin	4,4-DDE	4,4-DDT	
Resident Child - Cancer EALs (mg/kg) [1]				**42**	**23.4**	**20**	**1.4**	**1.7**	**Yes / No**
Resident Child - Noncancer EALs (mg/kg) [1]				**12**	**35**	**9.8**	**----**	**7.2**	
Drip Line	**HAR-DL-06-01**	3/11/2015	0 to 6	0.0049	0.61	0.031	0.0067	0.015	No
	HAR-DL-06-02	3/11/2015	0 to 6	<0.0044	2.1	0.032	0.060	0.016	No
	HAR-DL-06-03	3/11/2015	0 to 6	<0.0044	0.94	0.019	0.0054	<0.0081	No
	HAR-DL-12	3/11/2015	6 to 12	<0.0044	0.58	0.015	<0.0048	<0.0081	No

NOTES

Non PI Soil
PI Soil

Sample HAR-DL-06 is a triplicate.

PI Soil Pesticide impacted soil
HDOH Hawai'i Department of Health
HC Hickam Communities LLC
EAL Environmental Action Level
mg/kg milligram per kilogram
< less than the laboratory reporting limit
DDE dichlorodiphenyldichloroethylene
DDT dichlorodiphenyltrichloroethane
COPC chemicals of potential concern
---- not established

(1) HDOH. 2011. Review of Draft Preliminary Human Health Risk Evaluation Work Plan for Hickam Communities, Joint Base Pearl Harbor-Hickam. 2011-627-ES. Letter from Eric Sadoyama HDOH to Roger Franklin, Lend Lease Americas LLC. October 31, 2011.

(2) If any of the four criteria associated with the HC 2011 HHRE standard (HDOH 2011) are not met, soil must be managed as PI soil in accordance with the site-specific soil management plan. The four criteria associated with the 2011 HHRE standard are as follows:

Criteria #1 - the cumulative excess cancer risk (ECR) for aldrin plus dieldrin must not exceed 1×10^{-4}
Criteria #2 - the cumulative ECR for all other organochlorine pesticides must not exceed 1×10^{-5}
Criteria #3 - the cumulative ECR for all COPCs must not exceed 1×10^{-4}
Criteria #4 - the hazard index for all COPCs must not exceed 1.0.

(3) Technical chlordane. The technical chlordane constituents alpha- and gamma-chlordane not reported in this table. Any detections of alpha- and gamma-chlordane are provided in the laboratory analytical report.

APPENDIX A

LABORATORY ANALYTICAL REPORT

Torrent
LABORATORY, INC.

Tetra Tech Inc (HI)
737 Bishop St, Suite 2340
Honolulu, Hawaii 96813
Tel: 808-441-6600
Email: Yvonne.parry@Tetratech.com

RE: 1708 Harmon

Work Order No.: 1503089

Dear Yvonne Parry:

Torrent Laboratory, Inc. received 4 sample(s) on March 13, 2015 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Yelena Brodskaya
Technical Manager

March 18, 2015
Date

Torrent LABORATORY, INC.

Date: 3/18/2015

Client: Tetra Tech Inc (HI)

Project: 1708 Harmon

Work Order: 1503089

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

Analytical Comments, General, For all samples, Note:Samples processed under Incremental Sampling Procedure SOP TCI0109.

Sample collection date and time is reflective of Hawaiian Standard Time (HST) while all anlaytical dates and times are reflective of Pacific Standard Time (PST).

Analytical Comments for METHOD 8081S_Tetra Tech, All Samples, Note: Per client request, whenever possible (where matrix interference does not preclude it),sample data is reported to the MDL. Results reported between the MDL and PQL are qualified with the appropriate "J" flag and should be considered as estimated values

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date Received: 03/13/15
Date Reported: 03/18/15

HAR-DL-06-01 1503089-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Aldrin	SW8081A	10	0.0044	0.020	0.0049	mg/Kg
gamma-Chlordane	SW8081A	10	0.0042	0.020	0.10	mg/Kg
alpha-Chlordane	SW8081A	10	0.0036	0.020	0.10	mg/Kg
4,4-DDE	SW8081A	10	0.0048	0.020	0.0067	mg/Kg
Dieldrin	SW8081A	10	0.0043	0.020	0.031	mg/Kg
4,4-DDT	SW8081A	10	0.0081	0.020	0.015	mg/Kg
Chlordane, Technical	SW8081A	10	0.10	0.20	0.61	mg/Kg

HAR-DL-06-02 1503089-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Heptachlor epoxide	SW8081A	10	0.0032	0.020	0.0059	mg/Kg
gamma-Chlordane	SW8081A	10	0.0042	0.020	0.42	mg/Kg
alpha-Chlordane	SW8081A	10	0.0036	0.020	0.36	mg/Kg
4,4-DDE	SW8081A	10	0.0048	0.020	0.060	mg/Kg
Dieldrin	SW8081A	10	0.0043	0.020	0.032	mg/Kg
4,4-DDT	SW8081A	10	0.0081	0.020	0.016	mg/Kg
Chlordane, Technical	SW8081A	10	0.10	0.20	2.1	mg/Kg

HAR-DL-06-03 1503089-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
gamma-Chlordane	SW8081A	10	0.0042	0.020	0.17	mg/Kg
alpha-Chlordane	SW8081A	10	0.0036	0.020	0.17	mg/Kg
4,4-DDE	SW8081A	10	0.0048	0.020	0.0054	mg/Kg
Dieldrin	SW8081A	10	0.0043	0.020	0.019	mg/Kg
Chlordane, Technical	SW8081A	10	0.10	0.20	0.94	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date Received: 03/13/15
Date Reported: 03/18/15

HAR-DL-12 1503089-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Heptachlor epoxide	SW8081A	10	0.0032	0.020	0.0044	mg/Kg
gamma-Chlordane	SW8081A	10	0.0042	0.020	0.10	mg/Kg
alpha-Chlordane	SW8081A	10	0.0036	0.020	0.11	mg/Kg
Dieldrin	SW8081A	10	0.0043	0.020	0.015	mg/Kg
Chlordane, Technical	SW8081A	10	0.10	0.20	0.58	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date Received: 03/13/15
Date Reported: 03/18/15

Client Sample ID:	HAR-DL-06-01	**Lab Sample ID:**	1503089-001A
Project Name/Location:	1708 Harmon	**Sample Matrix:**	Soil
Project Number:	1031 P		
Date/Time Sampled:	03/11/15 / 11:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
gamma-BHC	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
beta-BHC	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	ND		mg/Kg	424666	13940
delta-BHC	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Heptachlor	SW8081A	3/17/15	03/17/15	10	0.011	0.020	ND		mg/Kg	424666	13940
Aldrin	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	0.0049	J	mg/Kg	424666	13940
Heptachlor epoxide	SW8081A	3/17/15	03/17/15	10	0.0032	0.020	ND		mg/Kg	424666	13940
gamma-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0042	0.020	0.10		mg/Kg	424666	13940
alpha-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	0.10		mg/Kg	424666	13940
Endosulfan I	SW8081A	3/17/15	03/17/15	10	0.0059	0.020	ND		mg/Kg	424666	13940
4,4-DDE	SW8081A	3/17/15	03/17/15	10	0.0048	0.020	0.0067	J	mg/Kg	424666	13940
Dieldrin	SW8081A	3/17/15	03/17/15	10	0.0043	0.020	0.031		mg/Kg	424666	13940
Endrin	SW8081A	3/17/15	03/17/15	10	0.0057	0.020	ND		mg/Kg	424666	13940
4,4-DDD	SW8081A	3/17/15	03/17/15	10	0.0047	0.020	ND		mg/Kg	424666	13940
Endosulfan II	SW8081A	3/17/15	03/17/15	10	0.015	0.020	ND		mg/Kg	424666	13940
4,4-DDT	SW8081A	3/17/15	03/17/15	10	0.0081	0.020	0.015	J	mg/Kg	424666	13940
Endrin aldehyde	SW8081A	3/17/15	03/17/15	10	0.010	0.020	ND		mg/Kg	424666	13940
Endosulfan sulfate	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Methoxychlor	SW8081A	3/17/15	03/17/15	10	0.0062	0.050	ND		mg/Kg	424666	13940
Endrin Ketone	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
Chlordane, Technical	SW8081A	3/17/15	03/17/15	10	0.10	0.20	0.61		mg/Kg	424666	13940
Toxaphene	SW8081A	3/17/15	03/17/15	10	0.10	1.0	ND		mg/Kg	424666	13940
TCMX (S)	SW8081A	3/17/15	03/17/15	10	52.5	139	85.1		%	424666	13940
DCBP (S)	SW8081A	3/17/15	03/17/15	10	50.2	139	96.6		%	424666	13940

NOTE: Reporting limits increased due to necessary dilution of the sample (viscous dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date Received: 03/13/15
Date Reported: 03/18/15

Client Sample ID:	HAR-DL-06-02	**Lab Sample ID:**	1503089-002A
Project Name/Location:	1708 Harmon	**Sample Matrix:**	Soil
Project Number:	1031 P		
Date/Time Sampled:	03/11/15 / 11:40		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
gamma-BHC	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
beta-BHC	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	ND		mg/Kg	424666	13940
delta-BHC	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Heptachlor	SW8081A	3/17/15	03/17/15	10	0.011	0.020	ND		mg/Kg	424666	13940
Aldrin	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
Heptachlor epoxide	SW8081A	3/17/15	03/17/15	10	0.0032	0.020	0.0059	J	mg/Kg	424666	13940
gamma-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0042	0.020	0.42		mg/Kg	424666	13940
alpha-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	0.36		mg/Kg	424666	13940
Endosulfan I	SW8081A	3/17/15	03/17/15	10	0.0059	0.020	ND		mg/Kg	424666	13940
4,4-DDE	SW8081A	3/17/15	03/17/15	10	0.0048	0.020	0.060		mg/Kg	424666	13940
Dieldrin	SW8081A	3/17/15	03/17/15	10	0.0043	0.020	0.032		mg/Kg	424666	13940
Endrin	SW8081A	3/17/15	03/17/15	10	0.0057	0.020	ND		mg/Kg	424666	13940
4,4-DDD	SW8081A	3/17/15	03/17/15	10	0.0047	0.020	ND		mg/Kg	424666	13940
Endosulfan II	SW8081A	3/17/15	03/17/15	10	0.015	0.020	ND		mg/Kg	424666	13940
4,4-DDT	SW8081A	3/17/15	03/17/15	10	0.0081	0.020	0.016	J	mg/Kg	424666	13940
Endrin aldehyde	SW8081A	3/17/15	03/17/15	10	0.010	0.020	ND		mg/Kg	424666	13940
Endosulfan sulfate	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Methoxychlor	SW8081A	3/17/15	03/17/15	10	0.0062	0.050	ND		mg/Kg	424666	13940
Endrin Ketone	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
Chlordane, Technical	SW8081A	3/17/15	03/17/15	10	0.10	0.20	2.1		mg/Kg	424666	13940
Toxaphene	SW8081A	3/17/15	03/17/15	10	0.10	1.0	ND		mg/Kg	424666	13940
TCMX (S)	SW8081A	3/17/15	03/17/15	10	52.5	139	77.7		%	424666	13940
DCBP (S)	SW8081A	3/17/15	03/17/15	10	50.2	139	86.3		%	424666	13940

NOTE: Reporting limits increased due to necessary dilution of the sample (viscous dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date Received: 03/13/15
Date Reported: 03/18/15

Client Sample ID:	HAR-DL-06-03	**Lab Sample ID:**	1503089-003A
Project Name/Location:	1708 Harmon	**Sample Matrix:**	Soil
Project Number:	1031 P		
Date/Time Sampled:	03/11/15 / 11:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
gamma-BHC	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
beta-BHC	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	ND		mg/Kg	424666	13940
delta-BHC	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Heptachlor	SW8081A	3/17/15	03/17/15	10	0.011	0.020	ND		mg/Kg	424666	13940
Aldrin	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
Heptachlor epoxide	SW8081A	3/17/15	03/17/15	10	0.0032	0.020	ND		mg/Kg	424666	13940
gamma-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0042	0.020	0.17		mg/Kg	424666	13940
alpha-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	0.17		mg/Kg	424666	13940
Endosulfan I	SW8081A	3/17/15	03/17/15	10	0.0059	0.020	ND		mg/Kg	424666	13940
4,4-DDE	SW8081A	3/17/15	03/17/15	10	0.0048	0.020	0.0054	J	mg/Kg	424666	13940
Dieldrin	SW8081A	3/17/15	03/17/15	10	0.0043	0.020	0.019	J	mg/Kg	424666	13940
Endrin	SW8081A	3/17/15	03/17/15	10	0.0057	0.020	ND		mg/Kg	424666	13940
4,4-DDD	SW8081A	3/17/15	03/17/15	10	0.0047	0.020	ND		mg/Kg	424666	13940
Endosulfan II	SW8081A	3/17/15	03/17/15	10	0.015	0.020	ND		mg/Kg	424666	13940
4,4-DDT	SW8081A	3/17/15	03/17/15	10	0.0081	0.020	ND		mg/Kg	424666	13940
Endrin aldehyde	SW8081A	3/17/15	03/17/15	10	0.010	0.020	ND		mg/Kg	424666	13940
Endosulfan sulfate	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Methoxychlor	SW8081A	3/17/15	03/17/15	10	0.0062	0.050	ND		mg/Kg	424666	13940
Endrin Ketone	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
Chlordane, Technical	SW8081A	3/17/15	03/17/15	10	0.10	0.20	0.94		mg/Kg	424666	13940
Toxaphene	SW8081A	3/17/15	03/17/15	10	0.10	1.0	ND		mg/Kg	424666	13940
TCMX (S)	SW8081A	3/17/15	03/17/15	10	52.5	139	59.4		%	424666	13940
DCBP (S)	SW8081A	3/17/15	03/17/15	10	50.2	139	62.8		%	424666	13940

NOTE: Reporting limits increased due to necessary dilution of the sample (viscous dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date Received: 03/13/15
Date Reported: 03/18/15

Client Sample ID:	HAR-DL-12	**Lab Sample ID:**	1503089-004A
Project Name/Location:	1708 Harmon	**Sample Matrix:**	Soil
Project Number:	1031 P		
Date/Time Sampled:	03/11/15 / 11:05		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
gamma-BHC	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
beta-BHC	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	ND		mg/Kg	424666	13940
delta-BHC	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Heptachlor	SW8081A	3/17/15	03/17/15	10	0.011	0.020	ND		mg/Kg	424666	13940
Aldrin	SW8081A	3/17/15	03/17/15	10	0.0044	0.020	ND		mg/Kg	424666	13940
Heptachlor epoxide	SW8081A	3/17/15	03/17/15	10	0.0032	0.020	0.0044	J	mg/Kg	424666	13940
gamma-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0042	0.020	0.10		mg/Kg	424666	13940
alpha-Chlordane	SW8081A	3/17/15	03/17/15	10	0.0036	0.020	0.11		mg/Kg	424666	13940
Endosulfan I	SW8081A	3/17/15	03/17/15	10	0.0059	0.020	ND		mg/Kg	424666	13940
4,4-DDE	SW8081A	3/17/15	03/17/15	10	0.0048	0.020	ND		mg/Kg	424666	13940
Dieldrin	SW8081A	3/17/15	03/17/15	10	0.0043	0.020	0.015	J	mg/Kg	424666	13940
Endrin	SW8081A	3/17/15	03/17/15	10	0.0057	0.020	ND		mg/Kg	424666	13940
4,4-DDD	SW8081A	3/17/15	03/17/15	10	0.0047	0.020	ND		mg/Kg	424666	13940
Endosulfan II	SW8081A	3/17/15	03/17/15	10	0.015	0.020	ND		mg/Kg	424666	13940
4,4-DDT	SW8081A	3/17/15	03/17/15	10	0.0081	0.020	ND		mg/Kg	424666	13940
Endrin aldehyde	SW8081A	3/17/15	03/17/15	10	0.010	0.020	ND		mg/Kg	424666	13940
Endosulfan sulfate	SW8081A	3/17/15	03/17/15	10	0.0049	0.020	ND		mg/Kg	424666	13940
Methoxychlor	SW8081A	3/17/15	03/17/15	10	0.0062	0.050	ND		mg/Kg	424666	13940
Endrin Ketone	SW8081A	3/17/15	03/17/15	10	0.0040	0.020	ND		mg/Kg	424666	13940
Chlordane, Technical	SW8081A	3/17/15	03/17/15	10	0.10	0.20	0.58		mg/Kg	424666	13940
Toxaphene	SW8081A	3/17/15	03/17/15	10	0.10	1.0	ND		mg/Kg	424666	13940
TCMX (S)	SW8081A	3/17/15	03/17/15	10	52.5	139	73.3		%	424666	13940
DCBP (S)	SW8081A	3/17/15	03/17/15	10	50.2	139	76.0		%	424666	13940

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1503089	**Prep Method:**	3545MI_OCP	**Prep Date:**	03/17/15	**Prep Batch:**	13940
Matrix:	Soil	**Analytical Method:**	SW8081A	**Analyzed Date:**	03/17/15	**Analytical Batch:**	424666
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.00044	0.0020	ND	
gamma-BHC	0.00040	0.0020	ND	
beta-BHC	0.00036	0.0020	ND	
delta-BHC	0.00049	0.0020	ND	
Heptachlor	0.0011	0.0020	ND	
Aldrin	0.00044	0.0020	ND	
Heptachlor epoxide	0.00032	0.0020	ND	
gamma-Chlordane	0.00042	0.0020	ND	
alpha-Chlordane	0.00036	0.0020	ND	
Endosulfan I	0.00059	0.0020	ND	
4,4-DDE	0.00048	0.0020	ND	
Dieldrin	0.00043	0.0020	ND	
Endrin	0.00057	0.0020	ND	
4,4-DDD	0.00047	0.0020	ND	
Endosulfan II	0.0015	0.0020	ND	
4,4-DDT	0.00081	0.0020	ND	
Endrin aldehyde	0.0010	0.0020	ND	
Endosulfan sulfate	0.00049	0.0020	ND	
Methoxychlor	0.00062	0.0050	ND	
Endrin Ketone	0.00040	0.0020	ND	
Chlordane, Technical	0.010	0.020	ND	
Toxaphene	0.010	0.10	ND	
TCMX (S)			91.1	
DCBP (S)			89.4	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1503089	**Prep Method:**	3545MI_OCP	**Prep Date:**	03/17/15	**Prep Batch:**	13940
Matrix:	Soil	**Analytical Method:**	SW8081A	**Analyzed Date:**	03/17/15	**Analytical Batch:**	424666
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
alpha-BHC	0.44	2.0	ND	40	86.2	87.2	1.06	44.2 - 125	30	
gamma-BHC	0.40	2.0	ND	40	84.9	85.9	1.00	56.9 - 124	30	
beta-BHC	0.36	2.0	ND	40	87.4	88.2	1.14	44.2 - 125	30	
delta-BHC	0.49	2.0	ND	40	84.9	85.5	0.549	61.5 - 116	30	
Heptachlor	1.1	2.0	ND	40	86.2	87.7	1.72	63.6 - 125	30	
Aldrin	0.44	2.0	ND	40	86.1	86.4	0.455	53 - 126	30	
Heptachlor epoxide	0.32	2.0	ND	40	88.6	89.0	0.615	54.6 - 130	30	
gamma-Chlordane	0.42	2.0	ND	40	85.9	86.2	0.255	68.7 - 123	30	
alpha-Chlordane	0.36	2.0	ND	40	84.5	85.0	0.537	42.4 - 128	30	
Endosulfan I	0.59	2.0	ND	40	68.2	68.4	0.241	61.2 - 119	30	
4,4-DDE	0.48	2.0	ND	40	84.4	83.0	1.74	45.3 - 123	30	
Dieldrin	0.43	2.0	ND	40	88.4	88.4	0.132	44 - 128	30	
Endrin	0.57	2.0	ND	40	86.0	83.8	2.58	44.1 - 126	30	
4,4-DDD	0.47	2.0	ND	40	82.7	86.0	3.87	39.6 - 123	30	
Endosulfan II	1.5	2.0	ND	40	69.3	69.8	0.785	46.7 - 112	30	
4,4-DDT	0.81	2.0	ND	40	89.9	88.2	1.70	52.8 - 134	30	
Endrin aldehyde	1.0	2.0	ND	40	88.5	88.9	0.459	40.2 - 113	30	
Endosulfan sulfate	0.49	2.0	ND	40	85.7	89.8	4.62	62.1 - 116	30	
Methoxychlor	0.62	5.0	ND	40	77.0	75.7	1.65	55.2 - 126	30	
Endrin Ketone	0.40	2.0	ND	40	86.5	88.0	1.75	53.9 - 120	30	
TCMX (S)			ND	4200	85.8	87.9		52.5 - 121		
DCBP (S)			ND	4200	91.5	91.3		50.2 - 121		

Torrent LABORATORY, INC.

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg.m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the anlayte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Torrent LABORATORY, INC.

Sample Receipt Checklist

Client Name: Tetra Tech Inc (HI)

Project Name: 1708 Harmon

Work Order No.: 1503089

Date and Time Received: 3/13/2015 10:10

Received By: ldi

Physically Logged By: ldi

Checklist Completed By: ldi

Carrier Name: FedEx

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/a

pH Adjusted by: n/a

Torrent LABORATORY, INC.

Login Summary Report

Client ID:	TL5162	Tetra Tech Inc (HI)	**QC Level:**	
Project Name:	1708 Harmon		**TAT Requested:**	Next Day:100
Project # :	1031 P		**Date Received:**	3/13/2015
Report Due Date:	3/18/2015		**Time Received:**	10:10

Comments: Recv'd 4 samples @ 2'C.Analyze for 8081.Incremental sampling required

Work Order # : ***1503089***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1503089-001A	HAR-DL-06-01	03/11/15 11:00	Soil	09/09/15			S_8081MITetra	
Sample Note:	1 day Rush!! (+ 2 days for MI sample prep). OCPs							
1503089-002A	HAR-DL-06-02	03/11/15 11:40	Soil	09/09/15			S_8081MITetra	
1503089-003A	HAR-DL-06-03	03/11/15 11:50	Soil	09/09/15			S_8081MITetra	
1503089-004A	HAR-DL-12	03/11/15 11:05	Soil	09/09/15			S_8081MITetra	

Torrent
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CHAIN-OF-CUSTODY RECORD

24 hr TAT

TETRA TECH

1503089

Client Name/Account #: TetraTech, Inc.
Address: 737 Bishop St., Suite 2340
City/State/Zip: Honolulu, HI 96813
Project Manager: Yvonne Parry
Telephone Number: (808)441-6617 Fax No.: (808) 836-1689
Sampler Name: (Print) Aaron Ungerleider
Sampler Signature: [signature]

Report To: Yvonne Parry
Invoice To: Yvonne Parry
Project ID: 1708 Harmon
Project #: 1031P

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Multi-Incremental Sample	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass (Yellow Label)	None (Black Label)	Other (one MeOH VOA)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: 8081 Organochlorine Pesticides	Multi-Incremental	(Lab ID)	RUSH TAT (Pre-Schedule)	Standard TAT
HAR-DL-06-01	3/11/15	1100	1			X	X												X		X	X	-001A	X	/
HAR-DL-06-02	3/11/15	1140	1			X	X												X		X	X	-002A	X	
HAR-DL-06-03	3/11/15	1150	1			X	X												X		X	X	-003A	X	
HAR-DL-12	3/11/15	1105	1			X	X												X		X	X	-004A	X	

REC ✓ LI ✓ LBL ✓ UR ___

RUSH 1 DAY

Special Instructions: As discussed previously, please air-dry, sieve and subsample following HDOH MIS guidance

Method of Shipment: FEDEX

Laboratory Comments:
Temperature Upon Receipt: 2°C
VOCs Free of Headspace? Y N

Relinquished by:	Date	Time	Received by:	Date	Time
Yvonne Parry	3/12/15	1300	FedEx	3/12/15	1300
FedEx	3/13/15	10:10	Received by Laboratory: L.D. Imbert	3-13-15	10:10

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Torrent
LABORATORY, INC.

Torrent REQUEST FORM

Rush Turnaround Services

Torrent Express™

Confirmation Number |

Date | 3/13/15

Company | TetraTech

Ordered By | Yvonne Parry

Email | xxxxxxxxxxxxxxxxxxx
(for Rush report)

For Torrent Lab Use Only

Project Name | xxxxxxxxxxxxxx

Project Number | xxxxxxxxxxxxx

Order ID | 1503089

Order Taken By | xxxxxxxxxxxxxx

Accounting |

Project Details

TAT Requested
(please check one)

☐ Same Day (2-8 Hours)
☑ One Day ☐ Noon
☐ 2 Day ☐ Noon
☐ 3 Day ☐ Noon
☐ 4 Day ☐ Noon

Number of Samples | 4

Matrix | Soil
(i.e., sample type: Is your sample soil, water, etc?)

Analysis | OCPs, MI sampling

☐ Weekend work required (refer to chart below for respective surcharge)

This request form may be a courtesy notice which reflects the rush services requested on the chain-of-custody. Please contact *Torrent Express*™ project management immediately at pm@torrentlab.com with the subject line "Rush TAT Cancellation" if you do not want the analysis(es) to proceed. **Cancellation of a *Torrent Express*™ service may be subject to a cancellation fee.**

In order to facilitate processing and scheduling, please notify Torrent Laboratory at least 24 hours in advance for any *Torrent Express*™ service.

Sample(s) must be received or scheduled for pick-up before 5:00 pm in order to be processed that day; all samples received after 5:00 pm will be processed the following day.

All *Torrent Express*™ Same Day and Next Day rush services will be charged a $250.00 minimum (excluding certain fees) plus the respective surcharge(s); all other *Torrent Express*™ rush services will be charged a $150.00 minimum (excluding certain fees) plus the respective surcharge(s).

The following table briefly describes Torrent Laboratory's *Torrent Express*™ surcharge pricing structure, please refer to your company specific price list for the precise surcharges.

	Same Day	Next Day*	2 Day*	3 Day*	4 Day*
Regular Rush	300%	150%	75%	50%	37.5%
Noon	–	200%	100%	62.5%	50%
Weekend	300%	300%	–	–	–

*business day(s)

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